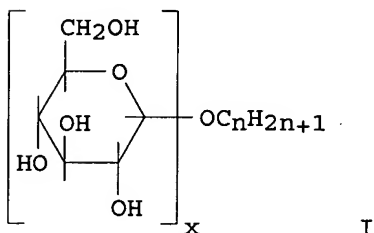


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FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 526443	A1	19930203	EP 1992-870111	19920731
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE				
CA 2075003	AA	19930203	CA 1992-2075003	19920730
CA 2075003	C	19990119		
AU 9220659	A1	19930204	AU 1992-20659	19920730
AU 647646	B2	19940324		
JP 05201815	A2	19930810	JP 1992-223220	19920730
US 6500782	B1	20021231	US 1995-570367	19951211
PRIORITY APPLN. INFO.:			US 1991-739945	A 19910802
OTHER SOURCE(S):	MARPAT 118:163261			
GI				



AB The alkyl polyglycoside surfactants I ( $x = 1-8$ ;  $n = 8-18$ ) enhance the herbicidal activity of glyphosate (no data). The compns. also contain acetylenic diols  $\text{RCR}_1(\text{OH})\text{C}:\text{CCR}_1(\text{OH})$  ( $R = \text{C1-8 alkyl}$ ;  $R_1 = \text{Me, Et, cyclopropyl, Ph}$ ) as foam-moderating agents. A composition comprised glyphosate monoisopropylamine salt 1, water 0.97, I ( $x = 1.6$ ,  $n = 9-11$ ) 0.27, and 2,5,8,11-tetramethyl-6-decyne-5,8-diol (30% solution) 0.2 part.

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L15 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:146474 CAPLUS

TITLE: Chemical constituents of rice (*Oryza sativa*) hulls and their herbicidal activity against duckweed (*Lemna paucicostata* Hegelm 381)

AUTHOR(S): Chung, Ill Min; Ali, Mohd; Ahmad, Ateeque; Lim, Jung Dae; Yu, Chang Yeon; Kim, Jin Seog

CORPORATE SOURCE: Department of Applied Life Science, Konkuk University, Seoul, 143-701, S. Korea

SOURCE: Phytochemical Analysis (2006), 17(1), 36-45

CODEN: PHANEL; ISSN: 0958-0344

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

IT INDEXING IN PROGRESS

AB Four new compds., stigmastanol-3 $\beta$ -p-glyceroxydihydrocoumaroate (1), stigmastanol-3 $\beta$ -p-butanoxydihydrocoumaroate (2), lanast-7,9(11)-dien-3 $\alpha$ ,15 $\alpha$ -diol-3 $\alpha$ -D-glucofuranoside (3) and 1-phenyl-2-hydroxy-3,7-dimethyl-11-aldehydic-tetradecane-2- $\beta$ -D-glucopyranoside (4), along with several known compds. were

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isolated from the methanol extract of hulls of *Oryza sativa*. The new structures were established by one- and two-dimensional NMR and in combination with IR, EI/MS, FAB/MS and HR-FAB/MS. Compound (3) strongly inhibited the growth of duckweed (*Lemna paucicostata* Hegelm 381), while compds. (2) and (4) exhibited weak inhibition.

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:102252 CAPLUS

DOCUMENT NUMBER: 138:380771

TITLE: Characterization of cytochrome P450-mediated bensulfuron-methyl O-demethylation in rice

AUTHOR(S): Deng, Fan; Hatzios, Kriton K.

CORPORATE SOURCE: Department of Plant Pathology, Physiology and Weed Science, Laboratory for Molecular Biology of Plant Stress, Virginia Polytechnic Institute and State University, Blacksburg, VA, 24061-0330, USA

SOURCE: Pesticide Biochemistry and Physiology (2003), Volume Date 2002, 74(2), 102-115

CODEN: PCBPBS; ISSN: 0048-3575

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The cytochrome P 450-mediated metabolism of the herbicide bensulfuron-Me (BSM) was investigated in rice (*Oryza sativa* L., cv. Lemont) seedlings. Shoots and roots of rice seedlings were harvested at 0, 4, 8, 12, 24, and 48 h following treatment with 1  $\mu$ M [<sup>14</sup>C]BSM. BSM and its metabolites were extracted from plant tissues with aqueous methanol, purified by TLC, and identified by HPLC and mass spectrometry using authentic metabolite stds. The major BSM metabolites identified in rice roots were: Me  $\alpha$ -(4-hydroxy-6-methoxypyrimidin-2-yl)carbamoylsulfamoyl-o-toluate (4-hydroxy-BSM); Me ( $\alpha$ -aminosulfonyl)-o-toluate; and N-4,6-dimethoxypyrimidin-2-yl urea. Crude microsomal preps. from roots of 5-day etiolated rice seedlings were treated with digitonin and purified by fast protein liquid chromatog. (FPLC) using Superose 12 HR gel column, Ph superose HR5/5 column, Mono Q anion column, and Mono P chromatofocusing column. SDS-PAGE anal. showed that the purified rice P 450 migrated to a single protein band with a mol. mass of about 60 kDa. P 450 activity was determined using BSM as substrate and 4-hydroxy-BSM as a product. The optimum pH of the rice P 450 catalyzing the O-demethylation of BSM was 7.2. P 450 activity was inhibited in vivo and in vitro by known P 450 inhibitors such as ABT, PBO, and TET and cytochrome c. Ethanol, the safeners NA and dimuron, and BSM induced the in vivo activity of the rice P 450. The results of this study demonstrate that a P 450-mediated O-demethylation of BSM plays an important role in the metabolism of BSM by rice seedlings.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:457423 CAPLUS

DOCUMENT NUMBER: 137:228035

TITLE: Acteoside from *Rehmannia glutinosa* nullifies paraquat activity in *Cucumis sativus*

AUTHOR(S): Chun, Jae Chul; Kim, Jin Cheol; Hwang, In Taek; Kim, Sung Eun

CORPORATE SOURCE: Faculty of Biotechnology and Research Center of Bioactive Materials, Chonbuk National University, Chonju, Jeonju, 561-756, S. Korea

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SOURCE: Pesticide Biochemistry and Physiology (2002), 72(3), 153-159

CODEN: PCBPBS; ISSN: 0048-3575

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A natural substance that nullifies paraquat activity was isolated and identified from paraquat-tolerant *Rehmannia glutinosa*. The active component was characterized by spectral anal. as 3,4-dihydroxy- $\beta$ -phenethyl-O- $\alpha$ -rhamnopyranosyl-(1 $\rightarrow$ 3)-4-O-caffeoyl- $\beta$ -D-**glucopyranoside** (acteoside). Phytotoxic injury of paraquat on the leaves of paraquat-susceptible cucumber was greatly decreased when paraquat was applied in combination with the isolated acteoside. No necrosis was observed in the cucumber leaves treated with 0.2 mM paraquat in 0.2% acteoside solution. Acteoside also decreased the levels of chlorophyll loss and malondialdehyde production caused by paraquat in a concentration-dependent manner. These results imply that the acteoside detected in *R. glutinosa* is associated with paraquat tolerance.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:341405 CAPLUS

DOCUMENT NUMBER: 132:325734

TITLE: FILIA determination of imazethapyr herbicide in water

AUTHOR(S): Lee, M.; Durst, R. A.; Spittler, T. D.; Forney, D. R.

CORPORATE SOURCE: Cornell Analytical Laboratories, New York State Agricultural Experiment Station, Cornell University, Geneva, NY, 14456, USA

SOURCE: ACS Symposium Series (2000), 751(Agrochemical Fate and Movement), 135-144

CODEN: ACSMC8; ISSN: 0097-6156

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In response to the need for a rapid, economical method to determine the herbicide, imazethapyr, at low concns. in water, the capillary FILIA (flow injection liposome immunoanal.) system was used. A capillary tube (57 cm + 0.45 mm inside diam) with immobilized imazethapyr antibody was used as the immunoreactor column in the flow injection system. The assay is based on sequential competitive binding between imazethapyr and imazethapyr-tagged liposomes for a limited number of antibody binding sites. Subsequent liposome rupture by injecting a detergent (n-octyl  $\beta$ -D-**glucopyranoside**) releases carboxyfluorescein which elutes and is measured fluorometrically. Water samples from wells, lysimeters, and runoff were collected from test plots and monitored watersheds following imazethapyr application at the Chesapeake Farms environmental research center, Chestertown, Maryland. Imazethapyr residues in water were concentrated 10 times by partitioning into methylene chloride, which was then evaporated. Residue was dissolved in tris-buffered saline solution and injected onto the immunocolumn. The anal. has a limit of detection of 0.01  $\mu$ g/L and a working range of 0.02-10  $\mu$ g/L imazethapyr.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:733275 CAPLUS

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DOCUMENT NUMBER: 130:136436  
TITLE: In vivo characterization of the drug resistance profile of the major ABC transporters and other components of the yeast pleiotropic drug resistance network  
AUTHOR(S): Kolaczkowski, Marcin; Kolaczowska, Anna; Luczynski, Jacek; Witek, Stanislaw; Goffeau, Andre  
CORPORATE SOURCE: Unite de Biochimie Physiologique, Universite Catholique de Louvain, Louvain la Neuve, Belg.  
SOURCE: Microbial Drug Resistance (Larchmont, New York) (1998), 4(3), 143-158  
CODEN: MDREFJ; ISSN: 1076-6294  
PUBLISHER: Mary Ann Liebert, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Multidrug resistance (MDR) mediated by broad specificity transporters is one of the most important strategies used by pathogens, including cancer cells, to evade chemotherapy. In the yeast *Saccharomyces cerevisiae*, a complex pleiotropic drug resistance (PDR) network of genes involved in MDR is composed of the transcriptional regulators Pdr1p and Pdr3p, which activate expression of the ATP-binding cassette (ABC) MDR transporter-encoding genes PDR5, SNQ2, and YOR1 as well as other not yet identified genes. Three hundred forty-nine toxic compds. were screened in isogenic *S. cerevisiae* strains deleted of PDR5, SNQ2, or YOR1 in different combinations as well as both PDR1 and PDR3. The screen revealed extremely promiscuous, yet limited, and to a large extent overlapping but distinct drug resistance profiles of Pdr5p, Snq2p, and Yor1p. These ABC-MDR transporters mediated resistance to most currently available classes of clin. and agriculturally important fungicides and also to many antibiotics, herbicides, and others. Several classes of compds. were identified for the 1st time in the drug resistance spectrum of MDR transporters. These are fungicides, such as anilinopyrimidines, benzimidazoles, benzenedicarbonitriles, dithiocarbamates, guanidines, imidothiazoles, polyenes, pyrimidynyl carbinols, and strobilurin analogs; the urea derivative and anilide herbicides; flavonoids, several membrane lipids resembling detergents; and newly synthesized lysosomotropic aminoesters; as well as many others. Identification of compds. showing Pdr1p, Pdr3p-dependent, but Pdr5p-, Snq2p-, and Yor1p-independent toxicity, reflected in the case of rhodamine 6G, by efflux alterations, suggests the involvement of new drug resistance genes and is a first step toward their identification. The highly increased toxicity of bile acids toward the PDR1, PDR3 double disruptant together with the decreased level of BAT1 promoter dependent  $\beta$ -galactosidase activity suggest that the Bat1p ABC transporter is a new member of the PDR network. These results may contribute to a better understanding of the mechanism of MDR, in particular in the pathogenic yeast *Candida albicans*. They also provide an indication of the physiol. function of MDR transporters and suggest new approaches for the cloning of the mammalian bile acid transporters.

REFERENCE COUNT: 86 THERE ARE 86 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:140639 CAPLUS  
TITLE: FILIA determination of imazethapyr herbicide in watershed monitoring studies.  
AUTHOR(S): Lee, M. Y.; Durst, R. A.; Spittler, T. D.; Forney, D. R.  
CORPORATE SOURCE: Cornell Analytical Labs, Cornell University, Geneva, NY, 14456, USA  
SOURCE: Book of Abstracts, 215th ACS National Meeting, Dallas,

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March 29-April 2 (1998), AGRO-074. American Chemical  
Society: Washington, D. C.  
CODEN: 65QTAA

DOCUMENT TYPE: Conference; Meeting Abstract  
LANGUAGE: English

AB A capillary FILIA (Flow Injection Liposome ImmunoAnal.) system has been applied for the determination of the herbicide imazethapyr in water. A capillary tube (60 cm + 0.45 mm i.d.) with immobilized imazethapyr antibody was used as the immunoreactor column in the flow injection system. The assay is based on sequential competitive binding between imazethapyr and imazethapyr-tagged liposomes for a limited number of antibody binding sites. Subsequent rupture of the liposomes by injection of a detergent (n-octyl  $\beta$ -L- glucopyranoside) releases 5-carboxyfluorescein which elutes and is measured fluorometrically. Water samples from wells, lysimeters and run-off were collected from test plots and monitored watersheds following imazethapyr application at the Chesapeake Farms environmental research center (Chestertown, MD). Imazethapyr residues in water samples were concentrated 10 times by partitioning into methylene chloride, which was then evaporated. The residue was dissolved in TBS (Tris Buffered Saline) solution and injected onto the immunocolumn. The anal. provides a limit of detection of 0.01  $\mu\text{g/L}$  and a working range of 0.02-10  $\mu\text{g/L}$  imazethapyr.

L15 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:64688 CAPLUS

DOCUMENT NUMBER: 126:100616

TITLE: Capillary electrophoresis of herbicides. II.  
Evaluation of alkylglucoside chiral surfactants in the enantiomeric separation of phenoxy acid herbicides

AUTHOR(S): Mechref, Yehia; El Rassi, Ziad

CORPORATE SOURCE: Department of Chemistry, Oklahoma State University,  
Stillwater, OK, 74078-3071, USA

SOURCE: Journal of Chromatography, A (1997), 757(1 + 2),  
263-273

CODEN: JCRAEY; ISSN: 0021-9673

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two chiral alkylglucoside surfactants, namely n-octyl- (OG) and n-nonyl- $\beta$ -D- glucopyranoside (NG), were evaluated in the enantiomeric separation of phenoxy acid herbicides. The enantiomeric resolution could be manipulated readily by adjusting the surfactant concentration, ionic strength, pH and separation temperature. The optimum surfactant concentration needed for maximum enantiomeric resolution varied among the different analytes and was an inverse function of the hydrophobicity of the phenoxy acid herbicides, with the most hydrophobic solute requiring less surfactant concentration for attaining a baseline enantiomeric resolution. Due to the ionic nature of the phenoxy acid herbicides, increasing the pH of the running electrolytes increased the degree of ionization of the acidic herbicides, thus decreasing their association with the chiral micelles and in turn their enantiomeric resolution. Increasing the ionic strength seems to enhance both the solubilization of the solute in the micelle and the chiral interaction of the solute with the micelle with a net increase in enantiomeric resolution. Performing the separation at a sub-ambient temperature favored an enhanced solute-micelle association and improved enantiomeric resolution.

L15 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

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ACCESSION NUMBER: 1996:233422 CAPLUS  
DOCUMENT NUMBER: 124:310876  
TITLE: Protoporphyrinogen oxidase of *Myxococcus xanthus*.  
Expression, purification, and characterization of the  
cloned enzyme  
AUTHOR(S): Dailey, Harry A.; Dailey, Tamara A.  
CORPORATE SOURCE: Department Microbiology, University Georgia, Athens,  
GA, 30602-2605, USA  
SOURCE: Journal of Biological Chemistry (1996), 271(15),  
8714-18  
CODEN: JBCHA3; ISSN: 0021-9258  
PUBLISHER: American Society for Biochemistry and Molecular  
Biology  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Protoporphyrinogen oxidase (EC 1.3.3.4) catalyzes the six electron oxidation of protoporphyrinogen IX to protoporphyrin IX. The enzyme from the bacterium *Myxococcus xanthus* has been cloned, expressed, purified, and characterized. The protein has been expressed in *Escherichia coli* using a Tac promoter-driven expression plasmid and purified to apparent homogeneity in a rapid procedure that yields approx. 10 mg of purified protein per L of culture. Based upon the deduced amino acid sequence the mol. weight of a single subunit is 49,387. Gel permeation chromatog. in the presence of 0.2% n-octyl- $\beta$ -D- **glucopyranoside** yields a mol. weight of approx. 100,000 while SDS gel electrophoresis shows a single band at 50,000. The native enzyme is, thus, a homodimer. The purified protein contains a non-covalently bound FAD but no detectable redox active metal. The M. xanthus enzyme utilizes protoporphyrinogen IX, but not coproporphyrinogen III, as substrate and produces 3 mol of H<sub>2</sub>O<sub>2</sub>/mol of protoporphyrin. The apparent K<sub>m</sub> and k<sub>cat</sub> for protoporphyrinogen in assays under atmospheric concns. of oxygen are 1.6  $\mu$ M and 5.2 min<sup>-1</sup>, resp. The di-Ph ether **herbicide** acifluorfen at 1  $\mu$ M strongly inhibits the enzyme's activity.

L15 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:216813 CAPLUS  
TITLE: Metabolism of 14C-sodium acifluorfen in peanut  
AUTHOR(S): Raub, Michael F.; Vengurlekar, Shailesh S.; Rieser, Clarice A.; Panek, Mary G.; Veit, Petra; McGown, Steven R.; Geiger, Darcy S.  
CORPORATE SOURCE: ABC Laboratories, Inc., Columbia, MO, 65202, USA  
SOURCE: Book of Abstracts, 211th ACS National Meeting, New Orleans, LA, March 24-28 (1996), AGRO-051. American Chemical Society: Washington, D. C.  
CODEN: 62PIAJ  
DOCUMENT TYPE: Conference; Meeting Abstract  
LANGUAGE: English

AB Sodium acifluorfen, sodium 5-(2-chloro-4-trifluoromethylphenoxy)-2-nitrobenzoate, is a post-emergent **herbicide** used for broadleaf weed control in soybeans, peanuts and rice. The metabolic fate, elucidated in e.g. excised soybean leaf tissue, indicated rapid cleavage of the diphenylether bond and subsequent conjugation of the two resulting portions of the mol. In this study the fate of the nitrobenzoic acid portion of the mol. was characterized in mature peanut seed and hulls after treatment simulating field conditions. The seed and hulls each contained at least 16 components, and acifluorfen comprised only a small fraction of the total residues, 0.006 ppm (3.6% TRR) in the seed and 0.085 ppm (12% TRR) in the hulls. The predominant conjugates found in the hull were isolated and identified using mass spectral anal. as a cysteine conjugate, S-(3-carboxy-4-nitrophenyl)cysteine, and as a S-glucoside,

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3-carboxy-4-nitrophenyl-1-thio B-D glucopyranoside.

L15 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:217693 CAPLUS

DOCUMENT NUMBER: 122:122221

TITLE: Micellar electrokinetic capillary chromatography with in situ charged micelles. IV. Influence of the nature of the alkylglycoside surfactant

AUTHOR(S): Smith, Joel T.; El Rassi, Ziad

CORPORATE SOURCE: Department of Chemistry, Oklahoma State University, Stillwater, OK, 74078-0447, USA

SOURCE: Journal of Chromatography, A (1994), 685(1), 131-43  
CODEN: JCRAEY; ISSN: 0021-9673

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Four different in situ charged micellar phases were evaluated in micellar electrokinetic capillary chromatog. (MECC) of neutral and acidic herbicides, and other aromatic compds. In situ charged micelles refer to dynamically charged entities that are formed via the complexation of borate with surfactants having sugar head groups. These dynamically charged surfactants yield micelles with adjustable surface charge densities which can be conveniently manipulated by changing borate concentration

and pH of the running electrolyte. The four surfactants, octanoylsucrose (OS), octyl- $\beta$ -D-glucopyranoside (OG), octyl- $\beta$ -D-maltopyranoside (OM) and nonanoyl-N-methylglucamide (MEGA 9), in the presence of alkaline borate yielded micelles characterized by migration time windows of varying width. The width of the migration time window was largely influenced by the nature of the sugar head group of the polyolic surfactant. The electrochromatog. behavior of OS, OM, OG and MEGA 9 was influenced by both the nature of the sugar head group and the length of the alkyl tail. OS, which differed from the other surfactants by having an alkyl tail with one fewer carbon atom, exhibited the lowest retention. MEGA 9 with its acyclic sugar head group and the presence of a polar amide linkage between the sugar and the alkyl tail showed a medium retentivity towards the various solutes under study. OG and OM, which differed from each other by the nature of the sugar head group, exhibited more or less similar retention behavior. Overall, due to differences in their migration time windows and retention behaviors, the four micellar phases afforded different selectivities toward charged and neutral solutes. The separation efficiencies achieved with in situ charged micelles, which exceeded 750000 plates/m, appear to be superior to those achieved with traditionally used micellar phases.

L15 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:170516 CAPLUS

DOCUMENT NUMBER: 122:229703

TITLE: Micellar electrokinetic capillary chromatography with in situ charged micelles: 3. Evaluation of alkylglucoside surfactants as anionic butylboronate complexes

AUTHOR(S): Smith, Joel T.; Rassi, Ziad El

CORPORATE SOURCE: Department of Chemistry, Oklahoma State University, Stillwater, OK, USA

SOURCE: Electrophoresis (1994), 15(10), 1248-59  
CODEN: ELCTDN; ISSN: 0173-0835

DOCUMENT TYPE: Journal

LANGUAGE: English

AB This article represents an extension to a new approach introduced very

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recently by the laboratory for the control of the surface charge d. as well as the hydrophobic character of micellar phases used in micellar electrokinetic capillary chromatog. (MECC). The approach is based on the complexation of polyolic surfactants, e.g., alkylglucosides, with butylboronate to form in situ branched, anionic surfactants. The butylboronate can also incorporate into the micelle via its alkyl tail and acts as a class I organic additive that mainly modifies the micelle by decreasing the critical micellar concentration, i.e., increasing the

hydrophobic

character of the micelle, while exhibiting little influence on the aqueous phase. The net result is an in situ charged micellar entity whose hydrophobic character is dynamically altered. The alkylglucoside-butylboronate micellar phases yielded high separation efficiency and proved useful in the separation of charged and neutral herbicides as well as the chiral separation of medicarpins and precursors, and dansylated D and L-amino acids in the presence of native or modified cyclodextrin chiral selectors.

L15 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:291972 CAPLUS

DOCUMENT NUMBER: 120:291972

TITLE: Micellar electrokinetic capillary chromatography with in situ charged micelles: II. Evaluation and comparison of octylmaltoside and octylsucrose surfactants as anionic borate complexes in the separation of herbicides

AUTHOR(S): Smith, Joel T.; El Rassi, Ziad

CORPORATE SOURCE: Dep. Chem., Oklahoma State Univ., Stillwater, OK, 74078-0447, USA

SOURCE: Journal of Microcolumn Separations (1994), 6(2), 127-38

CODEN: JMSEJ; ISSN: 1040-7685

DOCUMENT TYPE: Journal

LANGUAGE: English

AB This report is an extension of the authors' previous work involving the development of in situ charged micellar phases with adjustable surface charge d. for micellar electrokinetic capillary chromatog. (MECC) of neutral and charge herbicides. The micelles evaluated here are basically alkyl-disaccharide-borate complexes in which the surface charge d. can be conveniently varied by changing the operating parameters such as borate concentration and/or pH of the running electrolyte. The two alkyl-disaccharide surfactants (i.e., octyl- $\beta$ -D-maltopyranoside and octylsucrose), having the same alkyl tail but differing in the nature of the sugar polar head group, were compared and characterized over a wide range of conditions using neutral and acidic herbicides as model solutes. The effects of the operating parameters are discussed in terms of mobility, elution range parameter, capacity factor, peak capacity, and separation efficiency. The retention energetics of the micellar phases were studied using two homologous series, alkylphenylketones and alkylbenzenes. At constant micellized surfactant concentration, the two in situ charged micellar phases exhibited homoenergetic retention behavior toward the homologous solutes. On the other hand, even though the two surfactants differed by the nature of one sugar residue in their polar head groups, the micelles exhibited different hydrophobic character, with octylmaltoside yielding higher retention.

L15 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:289122 CAPLUS

DOCUMENT NUMBER: 120:289122

TITLE: Micellar electrokinetic capillary chromatography with in situ charged micelles. 1. Evaluation of

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N-D-Gluco-N-methylalkanamide surfactants as anionic borate complexes  
AUTHOR(S): Smith, Joel T.; Nashabeh, Wassim; El Rassi, Ziad  
CORPORATE SOURCE: Department of Chemistry, Oklahoma State University, Stillwater, OK, 74078-0447, USA  
SOURCE: Analytical Chemistry (1994), 66(7), 1119-33  
CODEN: ANCHAM; ISSN: 0003-2700

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB A series of N-D-gluco-N-methylalkanamide (MEGA) surfactants was evaluated in micellar electrokinetic capillary chromatog. (MECC) of neutral and charged species. The nonionic MEGA surfactants are readily converted in situ to anionic borate complexes through the association between their polyhydroxy head groups and borate ions at alkaline pH. The MEGA-borate complex surfactants yielded micelles with adjustable surface charge d., and consequently, the magnitude of the retention window was readily altered by the pH and the concentration of borate in the running electrolyte. Studies by <sup>11</sup>B NMR and liquid secondary ion mass spectrometry on the borate complex formation with MEGA surfactants permitted the quant. and qual. determination of the various MEGA-borate complexes, resp., and allowed the comparison of the MEGA-borate micelles to other in situ charged micelles recently introduced by this laboratory, i.e., the alkyl glucopyranoside-borate micelles. The bulky polyhydroxy head group of the MEGA-borate surfactants yielded MECC systems with unique retention properties toward neutral and charged species. At constant micellized surfactant concentration,

the methylene group selectivity of various homologous series, e.g., alkylbenzenes, phenylalkyl alcs., and Ph alkyl ketones, was largely unaffected by the length of the alkyl tail of the surfactant, indicating a similar physicochem. basis for retention on the various MEGA-borate micellar phases. Also, when the micellized surfactant concentration was held constant, the homologous solutes exhibited homoenergetic retention with the various in situ charged micellar phases. Under the same conditions, the capacity factors of neutral solutes increased linearly with the alkyl chain length of the MEGA surfactants, indicating an increase in the hydrophobic phase ratio of the MECC systems. The MEGA-borate micellar phases were useful in the separation of a number of herbicides, pyrazoles, barbiturates, and dansyl amino acids. In addition, in the presence of small amts. of  $\gamma$ -cyclodextrin, the MEGA-borate micelles allowed for the high resolution chiral separation of D,L dansyl amino acids.

L15 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:15649 CAPLUS

DOCUMENT NUMBER: 118:15649

TITLE: Micellar electrokinetic capillary chromatography of neutral solutes with micelles of adjustable surface charge density

AUTHOR(S): Cai, Jianyi; El Rassi, Ziad

CORPORATE SOURCE: Dep. Chem., Oklahoma State Univ., Stillwater, OK, 74078-0447, USA

SOURCE: Journal of Chromatography (1992), 608(1-2), 31-45  
CODEN: JOCRAM; ISSN: 0021-9673

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Novel micelles with adjustable surface charge d. were introduced for micellar electrokinetic capillary chromatog. These micelles are based on the complexation between octylglucoside surfactant and alkaline borate. The surface charge d. of the octylglucoside-borate micelles can be conveniently varied by changing the operating parameters such as borate concentration and/or pH of the running electrolyte. This feature permitted the

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tuning of the elution range, a parameter that largely influences the peak capacity and resolution in micellar electrokinetic capillary chromatog. Furthermore, with its balanced hydrophile-lipophile character, the octylglucoside-borate micellar system allowed the separation of hydrophobic species including herbicides, e.g., prometon, prometryne, propazine and butachlor, and some polyarom. hydrocarbons. High separation efficiencies were obtained over a wide range of elution conditions, and consequently the detection limit for the herbicides was at 18-52 fmol using UV detection.

L15 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1983:485370 CAPLUS

DOCUMENT NUMBER: 99:85370

TITLE: Glucose induced hydrogen ion influx and transient currents in excised roots: particularly those of Zea mays

AUTHOR(S): Kennedy, C. D.; Stewart, R. A.

CORPORATE SOURCE: Dep. Biochem. Physiol. Soil Sci., Wye Coll., Ashford, TN25 5AH, UK

SOURCE: Journal of Experimental Botany (1982), 33(137), 1220-38

CODEN: JEBOA6; ISSN: 0022-0957

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Application of D-glucose to solns. bathing excised maize, wheat, pea, and bean roots caused a rapid depolarization of the elec. potentials between the cut tops of the roots and the bathing solution, due entirely to glucose-induced H<sup>+</sup> fluxes. Current and H<sup>+</sup> fluxes were strongly influenced by external pH, the optimum pH for glucose-induced current charge being .apprx.4.0. Compds. which depolarized the transroot potential also inhibited the glucose-induced depolarization. Eadie-Hofstee plots relating the depolarization of transroot potential to the concns. of D-glucose or 3-O-methyl-D-**glucopyranoside** (I) showed that Km values increased with increasing concentration and were very similar to reported

values of I uptake in maize root segments. Km Values for a similar range of D-glucose concns. did not vary with pH or with membrane depolarization, due to a 10-fold increase in KCl concentration ΔV<sub>max</sub> Was lowered by an increase in external pH or a decrease in transroot potential. Proton and elec. gradients can thus affect glucose-induced H<sup>+</sup> influx. The auxin **herbicide**, 2,4-dichlorophenoxyethanoic acid (0.01 mM) stimulated the glucose-induced depolarizations in a manner consistent with an increase in cytoplasmic pH.

=>

=> logoff

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:H

COST IN U.S. DOLLARS

SINCE FILE TOTAL

ENTRY SESSION

FULL ESTIMATED COST

104.94 108.41

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL

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LOGINID:ssspta1202sxq

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	DEC 23	New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/ USPAT2
NEWS	4	JAN 13	IPC 8 searching in IFIPAT, IFIUDB, and IFICDB
NEWS	5	JAN 13	New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to INPADOC
NEWS	6	JAN 17	Pre-1988 INPI data added to MARPAT
NEWS	7	JAN 17	IPC 8 in the WPI family of databases including WPIFV
NEWS	8	JAN 30	Saved answer limit increased
NEWS	9	FEB 21	STN AnaVist, Version 1.1, lets you share your STN AnaVist visualization results
NEWS	10	FEB 22	The IPC thesaurus added to additional patent databases on STN
NEWS	11	FEB 22	Updates in EPFULL; IPC 8 enhancements added
NEWS	12	FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS	13	FEB 28	MEDLINE/LMEDLINE reload improves functionality
NEWS	14	FEB 28	TOXCENTER reloaded with enhancements
NEWS	15	FEB 28	REGISTRY/ZREGISTRY enhanced with more experimental spectral property data
NEWS	16	MAR 01	INSPEC reloaded and enhanced
NEWS	17	MAR 03	Updates in PATDPA; addition of IPC 8 data without attributes
NEWS	18	MAR 08	X.25 communication option no longer available after June 2006
NEWS	19	MAR 22	EMBASE is now updated on a daily basis
NEWS	20	APR 03	New IPC 8 fields and IPC thesaurus added to PATDPAFULL

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NEWS	21	APR 03	Bibliographic data updates resume; new IPC 8 fields and IPC thesaurus added in PCTFULL
NEWS	22	APR 04	STN AnaVist \$500 visualization usage credit offered
NEWS	23	APR 12	LINSPEC, learning database for INSPEC, reloaded and enhanced
NEWS	24	APR 12	Improved structure highlighting in FQHIT and QHIT display in MARPAT
NEWS	25	APR 12	Derwent World Patents Index to be reloaded and enhanced during second quarter; strategies may be affected
NEWS	26	MAY 10	CA/CAplus enhanced with 1900-1906 U.S. patent records

NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.  
V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT  
<http://download.cas.org/express/v8.0-Discover/>

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**Thank you in advance for your participation.**

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=> ile registry

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"HELP COMMANDS" at an arrow prompt ( $\Rightarrow$ ).

=> file registry

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STRUCTURE FILE UPDATES: 9 MAY 2006 HIGHEST RN 883631-57-0  
DICTIONARY FILE UPDATES: 9 MAY 2006 HIGHEST RN 883631-57-0

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on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> s 110615-47-9/rn  
L1 1 110615-47-9/RN

=> d l1

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 110615-47-9 REGISTRY \*

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result in incomplete search results. For additional information, enter HELP  
RN\* at an online arrow prompt (=>).

ED Entered STN: 10 Oct 1987

CN D-Glucopyranose, oligomeric, C10-16-alkyl glycosides (CA INDEX NAME)

MF Unspecified

CI MAN, GRS

SR US Environmental Protection Agency (US EPA)

LC STN Files: CHEMLIST, MSDS-OHS, USPATFULL

Other Sources: NDSL\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

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=> file caplus  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
2.34	2.55

FULL ESTIMATED COST

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FILE LAST UPDATED: 9 May 2006 (20060509/ED)

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=> s l1  
L2 0 L1

=> s l2  
L3 0 L1

=> s l1  
L4 0 L1

=> file caplus  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.92	3.47

FULL ESTIMATED COST

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Effective October 17, 2005, revised CAS Information Use Policies apply.  
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=> s l1

L5 0 L1

=> s alkyl polyglycoside

567154 ALKYL

657 POLYGLYCOSIDE

L6 508 ALKYL POLYGLYCOSIDE  
(ALKYL(W) POLYGLYCOSIDE)

=> s D-glucopyraniside

2311575 D

0 GLUCOPYRANISIDE

L7 0 D-GLUCOPYRANISIDE  
(D(W) GLUCOPYRANISIDE)

=> s glucopyraniside

L8 0 GLUCOPYRANISIDE

=> s glucopyraniside

L9 0 GLUCOPYRANISIDE

=> s glucopyranoside

L10 15090 GLUCOPYRANOSIDE

=> s sulfonylureas

L11 4088 SULFONYLUREAS

=> s l6 and l11

L12 1 L6 AND L11

=> s l6 and l10

L13 9 L6 AND L10

=> s l6 and herbicide

68213 HERBICIDE

L14 5 L6 AND HERBICIDE

=> s l10 and herbicide

68213 HERBICIDE

L15 15 L10 AND HERBICIDE

=> d l13 1-9 ibib hitstr abs

L13 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:588521 CAPLUS

DOCUMENT NUMBER: 138:155253

TITLE: Effects from reaction condition on DP-value, ratio of  
 $\alpha$ - and  $\beta$ - glucopyranoside on alkyl  
polyglycosides

AUTHOR(S): Jin, Xin; Zhang, Shufen; Yang, Jinzong; Tang, Bingtao;  
Yu, Ning; Zhu, Minggui

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CORPORATE SOURCE: State Key Laboratory of Fine Chemicals, Dalian  
University of Technology, Dalian, 116012, Peop. Rep.  
China

SOURCE: Xiandai Huagong (2002), 22(4), 30-33  
CODEN: HTKUDJ; ISSN: 0253-4320

PUBLISHER: Xiandai Huagong Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB Alkyl polyglycosides (APGs) were prepared by p-toluenesulfonic acid-catalyzed acetalization of glucose with fatty alc. mixture made of dodecanol, tetradecanol, and hexadecanol. APGs' structures were characterized, the average d.p. (DP-value) and the ratio of  $\alpha$ -D-glucopyranoside to  $\beta$ -D-glucopyranoside were calculated. The effects of reaction conditions on DP-value, ratio of  $\alpha$ -D-glucopyranoside to  $\beta$ -D-glucopyranoside, ratio of glucopyranoside to glucofuranoside were also studied. The results showed that the products with differences in DP-value, ratio of  $\alpha$ - to  $\beta$ -D-glucopyranoside and ratio of glucopyranoside to glucofuranoside were gotten by controlling reaction conditions: such as molar ratio of alc. to glucose, reaction temperature, amount of catalyst, and reaction time, etc.

L13 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:132795 CAPLUS

DOCUMENT NUMBER: 137:213062

TITLE: Determination of total concentration of alkyl polyglycosides in aqueous solution using near infrared transmittance spectroscopy

AUTHOR(S): Kim, Jong-Yun; Woo, Young-Ah; Kim, Hyo-Jin; Kim, Jong-Duk

CORPORATE SOURCE: Department of Chemical Engineering, Korea Advanced Institute of Science and Technology, Taejon, 305-701, S. Korea

SOURCE: Near Infrared Spectroscopy, Proceedings of the International Conference, 9th, Verona, Italy, June 13-18, 1999 (2000), Meeting Date 1999, 441-445.  
Editor(s): Davies, Anthony M. C.; Giangiacomo, Roberto. NIR Publications: Chichester, UK.  
CODEN: 69CGZM; ISBN: 0-9528666-1-7

DOCUMENT TYPE: Conference

LANGUAGE: English

AB Near IR (NIR) spectroscopy is suggested as a simple and convenient method for quant. determination of alkyl polyglycosides (AGs) mixture as well as pure AG-decyl glucopyranoside (10G1) in an aqueous solution. A rapid, accurate and nondestructive quant. determination of 10G1 and total concentration of AG

mixture in aqueous solution was conducted using NIR spectroscopy. The NIR region

in 800-2500 nm was used and the models for quant. determination were developed by

using multiple linear regression (MLR). For 10G1 and AG mixts., the second derivative NIR data were utilized to build the model. In the anal. of NIR spectra, derivative spectroscopic technique are typically used since baseline offsets are largely eliminated without compromising the signal-to-noise ratio. The NIR data with the concentration of 0.030-0.570

mg/mL

were used in the study. The best calibration was constructed using MLR, providing a standard error of prediction of 0.053 and 0.061 mg/mL for 10G1 and AG mixts., resp. These results suggest that NIR spectroscopy can be utilized as a simple and convenient method for the determination of AG mixts.

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well as 10G1 in aqueous solution

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:816831 CAPLUS

DOCUMENT NUMBER: 135:359445

TITLE: Composition and process for cleaning floors

INVENTOR(S): Bejarano, Nancy Iris; Fogliacco, Julio Luis; Siviero,  
Jose Daniel

PATENT ASSIGNEE(S): Unilever N.V., Neth.; Unilever PLC; Hindustan Lever  
Ltd.

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001083659	A1	20011108	WO 2001-EP3880	20010405
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2001010422	A	20030204	BR 2001-10422	20010405
PRIORITY APPLN. INFO.:			EP 2000-201609	A 20000502
			WO 2001-EP3880	W 20010405
AB Invention concerns cleaning compns. for polymer coated wooden floors comprising: 0.5-5.0 at least one C8-18 <b>alkyl-</b> <b>polyglycoside</b> detergent surfactants wherein the polyglycoside group contains 1-4 glycoside units, 0.5-5.0 an ethylene glycol C2-5 alkyl ether, and 0.5-5.0 a C2-4 alkanol and which do not contain any quaternary ammonium compds. The ethylene glycol ether is preferably the Bu ether and the alkanol is preferably isopropanol. The invention also concerns a process for cleaning polymer coated wooden floors comprising applying a composition according to the invention to the floor or an aqueous solution thereof a containing at least 1 part of the composition per 200 parts of solution Thus, a composition comprising alkyl polyglucoside (a mixture of decyl and octyl glucoside and C10-16 alkyl <b>glucopyranoside</b> ) 1.50, iso-Pr alc. 2.0, Butyl Cellosolve 2.0, citric acid 0.0020, 1,2-benzisotiazolin-3-one 0.016, perfume 0.7, yellow colorant 0.0002, red colorant 0.0002, blue colorant 0.00001, and demineralized water q.s. to 100% is applied on a polyurethane coated wooden floor showing no damage to the floor coating.				
REFERENCE COUNT:	4	THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L13 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:503335 CAPLUS

DOCUMENT NUMBER: 136:114918

TITLE: Near-infrared spectroscopy as a convenient analytical  
method for alkyl polyglycosides

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AUTHOR(S): Kim, J.-Y.; Woo, Y.-A.; Kim, H.-J.; Kim, J.-D.  
CORPORATE SOURCE: Department of Chemical Engineering, Korea Advanced  
Institute of Science and Technology, Taejon, 305-701,  
S. Korea  
SOURCE: Journal of Pharmaceutical and Biomedical Analysis  
(2001), 26(1), 73-78  
CODEN: JPBADA; ISSN: 0731-7085  
PUBLISHER: Elsevier Science B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Near IR (NIR) spectroscopy is used for the rapid determination of decyl  
**glucopyranoside** (10G1) and **alkyl polyglycoside**  
(AG) mixts. having different alkyl chain length and the number of glucose  
unit in aqueous solution NIR spectroscopy is a much simpler spectroscopic  
anal.

method compared to three anal. methods for mixture of AGs such as thin layer  
chromatog. (TLC), high performance liquid chromatog. (HPLC), and photometry  
method. NIR spectra of AGs between 0.030 and 0.540 mg/mL in aqueous solns.  
were utilized to develop a calibration model. Both raw spectra and the  
second derivs. of AGs were tested for the best fit. The best calibration  
was built with second derivative spectra by using multiple linear regression  
(MLR). The standard error of calibration (SEC) and the standard error of  
prediction (SEP) were used for the evaluation of the model. The best  
calibration provides an SEP of 0.052 and 0.061 mg/mL for the prediction  
set of 10G1 and AG mixture, resp.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:764475 CAPLUS  
DOCUMENT NUMBER: 133:355572  
TITLE: Langmuir monolayer of **alkyl**  
**polyglycoside** in concentrated NaCl solution  
AUTHOR(S): Kim, Jong-Yun; Kim, Mu-Hyun; Nakanishi, Fusae; Kim,  
Jong-Duk  
CORPORATE SOURCE: Dept. of Chem. Eng., KAIST, Taejon, 305-701, S. Korea  
SOURCE: Molecular Crystals and Liquid Crystals Science and  
Technology, Section A: Molecular Crystals and Liquid  
Crystals (2000), 349, 239-242  
CODEN: MCLCE9; ISSN: 1058-725X  
PUBLISHER: Gordon & Breach Science Publishers  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Langmuir monolayer of alkyl polyglycosides (AP) having different alkyl  
chain length and d.p. was studied. NaCl aqueous solution with 5 M  
concentration is  
enough to prepare the insol. monolayers of some series of APs.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:143060 CAPLUS  
DOCUMENT NUMBER: 132:256331  
TITLE: Zeta potential of nanobubbles generated by  
ultrasonication in aqueous **alkyl**  
**polyglycoside** solutions  
AUTHOR(S): Kim, Jong-Yun; Song, Myung-Geun; Kim, Jong-Duk  
CORPORATE SOURCE: Department of Chemical Engineering, Korea Advanced  
Institute of Science and Technology, Taejon, 305-701,  
S. Korea

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SOURCE: Journal of Colloid and Interface Science (2000),  
223(2), 285-291  
CODEN: JCISA5; ISSN: 0021-9797  
PUBLISHER: Academic Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB A simple and convenient method to measure microelectrophoretic mobilities was proposed to determine the zeta potential of nanobubbles generated by ultrasonication. Bubbles in pure water solns. and in aqueous solns. of **alkyl polyglycoside** (AG) with different alkyl chain lengths and ds.p. in the head group were sonicated with a Pd-coated electrode designed specially by the manufacturer. The zeta potentials of bubbles with ordinary cationic and ionic surfactants are consistent with others' previous results. The average size of the bubbles generated by sonication is in the range of 300-500 nm. The zeta potentials of bubbles in both pure water and AG solns. at all pH values are neg. As the chain length of AG increases, zeta potentials significantly decrease at high pH. For nonionic AG, a possible charging mechanism based on known mechanisms is suggested to explain the neg. charge, known to be unusual. Even with a very high concentration of H<sup>+</sup> ions in solution the bubbles are charged neg. because the interface is covered with slightly acidic alc. groups of AGs. At high pH, the less polar the surfactant, the more neg. the charge, since nonpolar surfactant mols. induce the adsorption of OH<sup>-</sup> ions, rather than H<sup>+</sup> ions that prefer hydration by water mols. (c) 2000 Academic Press.  
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:199251 CAPLUS  
DOCUMENT NUMBER: 130:224624  
TITLE: Enzymic analysis of alkyl polyglycosides. Enzymic degradation by  $\alpha$ -glucosidase,  $\beta$ -glucosidase, and isomaltase  
AUTHOR(S): Kroh, Lothar W.; Neubert, Timo; Raabe, Ellen; Waldhoff, Heinrich  
CORPORATE SOURCE: Technical University Berlin, Berlin, Germany  
SOURCE: Tenside, Surfactants, Detergents (1999), 36(1), 19-21  
CODEN: TSDEES; ISSN: 0932-3414  
PUBLISHER: Carl Hanser Verlag  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The aim of the investigations is to develop a method for the quant. determination of alkyl polyglucosides based on enzymic determination of glucose after enzymic hydrolysis. To achieve this, the glycosidic bonds between the glucose mols. as well as between the fatty alc. and glucose are hydrolyzed by carbohydrases and, after determination of the released glucose concentration the active substance content in com. **alkyl polyglycoside** surfactants can be calculated. In a first step, the ability of the carbohydrases  $\alpha$ -glucosidase,  $\beta$ -glucosidase, and isomaltase to cleave the glucosidic bond between fatty alc. and carbohydrate was shown by means of the model surfactants octyl- $\alpha$  and octyl- $\beta$ -D-glycopyranoside. By the hydrolases tested so far it was not possible to achieve a complete hydrolysis of all glucosidic bonds in the test samples Glucopon 215 and Glucopon 600. This is why the calculated value (based on the released glucose) of the active substance content is lower than specified by the manufacturer. In further expts. it will be tested whether it is possible to achieve a quant. hydrolysis using addnl. types of

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carbohydrolases or to achieve a quantification with the help of a correction factor.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:12528 CAPLUS

DOCUMENT NUMBER: 130:57025

TITLE: Cosmetic and dermatologic oil-in-water emulsion formulations for light protection containing hydrophobic inorganic micropigments and hydrophilic surfactants

INVENTOR(S): Gers-Barlag, Heinrich; Kroepke, Rainer

PATENT ASSIGNEE(S): Beiersdorf A.-G., Germany

SOURCE: Ger. Offen., 20 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19725087	A1	19981217	DE 1997-19725087	19970613
EP 908172	A1	19990414	EP 1998-109941	19980530
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: DE 1997-19725087 A 19970613

OTHER SOURCE(S): MARPAT 130:57025

AB Formulations containing suspended hydrophobic inorg. pigment microparticles in the oil phase as photoprotectants are stabilized against phase separation, migration of pigment particles into the aqueous phase, and agglomeration of the pigment particles by inclusion of a hydrophilic surfactant such as an alkyl glucoside, acyl lactylate, betaine, or coco amphoacetate, preferably together with a coemulsifier and a water-soluble or oil-soluble UV-B filtering agent. Thus, an oil-in-water lotion contained glyceryl stearate 3.50, stearic acid 1.80, glycerin 3.00, cetostearyl alc. 0.50, octyldodecanol 7.00, dicaprylyl ether 8.00, cetostearyl isononanoate 6.00, Plantaren 2000 (alkyl polyglycoside surfactant) 1.00, hydrophobic TiO<sub>2</sub> 1.00, Carbomer 0.20, 45% NaOH 0.20, preservative, perfume, and demineralized water to 100.00 weight%.

L13 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:337899 CAPLUS

DOCUMENT NUMBER: 125:11356

TITLE: Method for producing sugar fatty acid esters by enzymic esterification

INVENTOR(S): Ando, Hideo; Iwasaki, Ryoza; Tamya, Michikatsu; Uemura, Shingo

PATENT ASSIGNEE(S): Lion Corp, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08067690	A2	19960312	JP 1994-228802	19940830

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PRIORITY APPLN. INFO.:

JP 1994-228802

19940830

AB Sugar fatty acid esters, useful as surfactants, are prepared by reaction of 1 or  $\geq 2$  sugars selected from lower alkyl glycosides and polyglycosides (preparation described below) with 1 or  $\geq 2$  fatty acids selected from C6-22 (un)saturated fatty acids and their lower alc. esters in the presence of a hydrolase, wherein the acid catalyst described below or acid catalyst-derived substances in said sugar raw materials are removed to be substantially nonexistent and then subjected to enzymic esterification. Said lower alkyl glycosides and polyglycosides are obtained by reacting (1) a C5-7 monosaccharide obtained by hydrolysis of polysaccharides or oligosaccharides in the presence of an acid catalyst and a disaccharide consisting of hexoses, (2) polysaccharides, (3) oligosaccharides, (4) a C5-7 monosaccharide, or (5) a disaccharide consisting of hexoses, with a lower alc. in the presence of an acid catalyst. Removal of the acid catalyst or acid catalyst-derived substances for the raw material prevents the lowering of enzyme activity, enables repeated use of the enzyme, and makes this process industrially suitable. Thus, Me glucoside (prepared by methanolysis of corn starch in the presence of H<sub>2</sub>SO<sub>4</sub> and made substantially free from MeOSO<sub>3</sub>H,  $\leq 5$  ppm, by treatment with an ion exchange resin), Me caprylate, a Candida antarctica-derived heat resistant lipase immobilized on a acrylic resin (NOVA Inc.), and  $\beta$ -picoline were added to a flask in Me caprylate/methyl glucoside ratio mol of 4,  $\beta$ -picoline/methyl glucoside weight ratio of 4, and immobilized lipase/methyl glucoside weight ratio of 0.1 and heated in vacuo at 70° for 3 h while only refluxing  $\beta$ -picoline to give Me glucoside caprylate esters with .apprx.95% conversion of Me glucoside vs. 0% conversion of Me glucoside containing 41,000 ppm MeOSO<sub>3</sub>H. The immobilized catalyst was recycled 12-times although the longer reaction time (5-7 h) was required to reach 95% conversion of Me glucoside.

=> d his

(FILE 'HOME' ENTERED AT 13:13:01 ON 10 MAY 2006)

FILE 'REGISTRY' ENTERED AT 13:13:16 ON 10 MAY 2006

L1 1 S 110615-47-9/RN

FILE 'CAPLUS' ENTERED AT 13:13:53 ON 10 MAY 2006

L2 0 S L1

L3 0 S L2

L4 0 S L1

FILE 'CAPLUS' ENTERED AT 13:14:52 ON 10 MAY 2006

L5 0 S L1

L6 508 S ALKYL POLYGLYCOSIDE

L7 0 S D-GLUCOPYRANISIDE

L8 0 S GLUCOPYRANISIDE

L9 0 S GLUCOPYRANISIDE

L10 15090 S GLUCOPYRANISIDE

L11 4088 S SULFONYLUREAS

L12 1 S L6 AND L11

L13 9 S L6 AND L10

L14 5 S L6 AND HERBICIDE

L15 15 S L10 AND HERBICIDE

=> d l14 and l13

L13 IS NOT VALID HERE

For an explanation, enter "HELP DISPLAY".

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=> s l13 and l14  
L16 0 L13 AND L14

=> l14 1-5 ibib hitstr abs  
L14 IS NOT A RECOGNIZED COMMAND  
The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> d l14 1-5 ibib hitstr abs

L14 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:940781 CAPLUS  
DOCUMENT NUMBER: 143:224141  
TITLE: Preparation for killing water hyacinth in water area  
INVENTOR(S): Wang, Wei; Chen, Zhiming; Zhou, Shuguang; Zheng,  
Hongchao; Qian, Wenfei; Bao, Min; Chen, Yifei  
PATENT ASSIGNEE(S): Zhejiang Xian Chemical Industrial Group Co., Ltd.,  
Peop. Rep. China  
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp.  
CODEN: CNXXEV  
DOCUMENT TYPE: Patent  
LANGUAGE: Chinese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1439266	A	20030903	CN 2003-104097	20030224
PRIORITY APPLN. INFO.:			CN 2003-104097	20030224

AB The material of the preparation comprises glyphosate and its salt as available component 10-70, one or more kinds of sulfonylurea **herbicide** as available component 2-10, filler 1-80, and surfactant 6-20%. The glyphosate salt may be isopropylamine, triethylamine, methylamine, ethanolamine, ammonium, K, Na salt, and caoliulin; the sulfonylurea **herbicide** may be metsulfuron-Me, chlorsulfuron, tribenuron, DPX-A7881, triasulfuron, and thifensulfuron, etc.; the filler may be Na<sub>2</sub>CO<sub>3</sub>, K<sub>2</sub>CO<sub>3</sub>, Na<sub>2</sub>SO<sub>3</sub>, NaHCO<sub>3</sub>, KHCO<sub>3</sub>, 2SO<sub>4</sub>, and NaSO<sub>4</sub>; and the surfactant may be fatty epoxy ethane and its addition compound, or amino silicone oil, or tea saponin, or **alkyl polyglycoside**. The glyphosate or its salt and sulfonylurea **herbicide** can be mixed together before using, and can be used resp. in 12 h.

L14 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:76765 CAPLUS  
DOCUMENT NUMBER: 142:350518  
TITLE: Deposition and leaching of tebuthiuron on sugar cane straw applied with and without **alkyl polyglycoside** adjuvant  
AUTHOR(S): Negrisoli, Eduardo; Drolhe da Costa, Eduardo Antonio; Velini, Edivaldo Domingues; Cavenaghi, Anderson Luis; Tofoli, Gustavo Radomille  
CORPORATE SOURCE: Faculdade de Agronomia da Universidade do Estado de Sao Paulo, UNESP/Botucatu, Brazil  
SOURCE: Journal of Environmental Science and Health, Part B: Pesticides, Food Contaminants, and Agricultural Wastes (2005), B40(1), 207-214  
CODEN: JPFCD2; ISSN: 0360-1234  
PUBLISHER: Taylor & Francis, Inc.

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DOCUMENT TYPE: Journal  
LANGUAGE: English

AB A laboratory experiment was carried out to study the effects of an alkyl polyglycoside adjuvant (APG) on deposition and leaching of the herbicide tebuthiuron applied on sugarcane straw. Tebuthiuron, at a concentration of 1200 mg L<sup>-1</sup>, was applied sep. and in tank mix with the APG adjuvant, at concns. of 0.07 and 0.09% (weight/volume), using a spraying volume of 204 L ha<sup>-1</sup>. A precipitation equivalent to 20 mm of rain was simulated, 24 h after the applications, to evaluate the herbicide leaching. Tebuthiuron was determined by HPLC. The addition of APG adjuvant at 0.07% (weight/volume) provided an increase of 11.5% in the deposition of tebuthiuron on straw and a reduction of 50.4% in the drift of the herbicide but did not affect significantly the leached amount (68.5%), when compared with the treatment where tebuthiuron was applied alone (70.8%). At the concentration of 0.09% (weight/volume), the APG adjuvant caused an increase of 22.7% in the deposition; APG reduced the drift of the herbicide by 99.9% and reduced the leached amount by 7.6% thereby increasing the retention of the herbicide by straw.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:203381 CAPLUS

DOCUMENT NUMBER: 138:223306

TITLE: Alkyl polyglycoside surfactant systems for agriculturally active compounds

INVENTOR(S): Hopkinson, Michael J.; Moore, Carolyn E.; Fowler, Jeffrey D.

PATENT ASSIGNEE(S): Syngenta Crop Protection, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 11 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003050194	A1	20030313	US 2002-235276	20020905
US 6746988	B2	20040608		
CA 2459698	AA	20030320	CA 2002-2459698	20020905
WO 2003022049	A1	20030320	WO 2002-US28207	20020905
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1423001	A1	20040602	EP 2002-757590	20020905
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
BR 2002012549	A	20041013	BR 2002-12549	20020905
PRIORITY APPLN. INFO.:			US 2001-317474P	P 20010907

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